ABSTRACT OF THE DISCLOSURE

The solid-phase synthesis of individual 1,3-disubstituted and 1,3,5-trisubstituted-1,3,5-triazine-2,4,6-triones and libraries thereof from a resin is described. Reaction of resin-bound amino acids with isocyanates yields resin-bound ureas, which further react with chlorocarbonyl isocyanate to selectively afford the resin-bound 1,3-disubstituted-1,3,5-triazine-2,4,6-triones. Selective alkylation at the *N*-5 position of the resin-bound 1,3-disubstituted-1,3,5-triazine-2,4,6-triones produces a tri-substituted triazinetrione. The products are cleaved from their solid support and obtained in good yield and purity.